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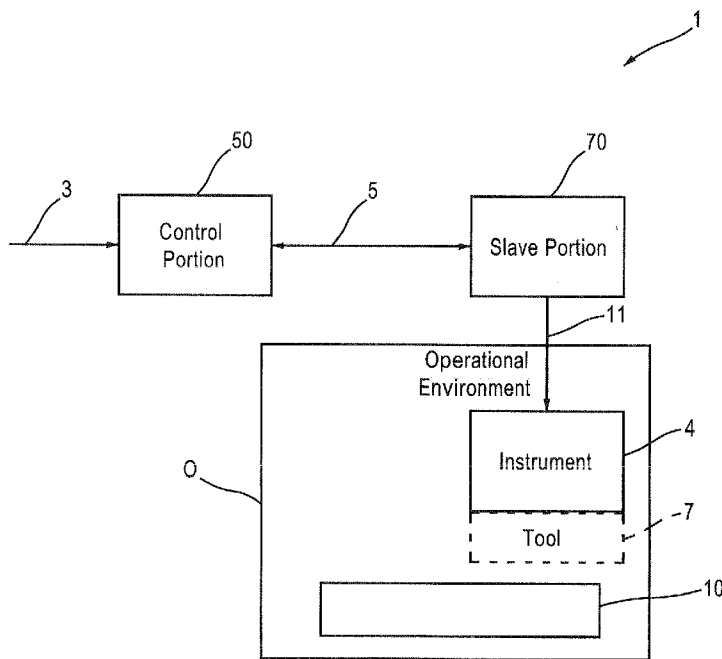
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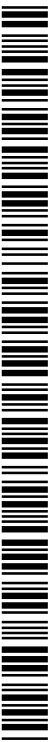
[Continued on next page]

(54) Title: SYSTEMS, APPARATUSES AND METHODS OF TOOL EXCHANGE



(57) Abstract: A system for exchanging at least one end tool includes at least one tool exchange device for retaining each of the at least one end tool and at least one operating instrument engageable with each of the at least one end tool. The tool exchange device includes a tool retaining mechanism having an opening and a plurality of engagement features to enable mutually exclusive engagement and disengagement of the tool retaining mechanism with each of the at least one tool. Each of the at least one tool is receivable in the opening and has a biasing member engageable with the plurality of engagement features for at least one of biasing to an engaged position and a disengaged position.

Fig.1A





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**A. CLASSIFICATION OF SUBJECT MATTER***A61B 19/00(2006.01)i, B23Q 3/155(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

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Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: surgical, tool, exchange, engagement, disengagement, instrument, biasing member, and tool retaining mechanism

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2005-0283137 A1 (MARK C. DOYLE et al.) 22 December 2005 See abstract; paragraphs 36-66; claims 1,29; figs. 1-8.	34 1-33,35-39
A	US 2002-0111604 A1 (MARK C. DOYLE et al.) 15 August 2002 See abstract; paragraphs 63-64; claim 4; figs. 1,7-9.	1-39
A	US 05893875 A (PAUL D. O'CONNOR et al.) 13 April 1999 See abstract; claim 1; figs. 1,8-9.	1-39
A	US 2002-0143319 A1 (DAVID L. BROCK) 03 October 2002 See abstract; claim 1; figs. 3-8,10,14.	1-39

 Further documents are listed in the continuation of Box C. See patent family annex.

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